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Patent [19]

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[54] PHOTOCATALYST POWDER, PHOTOCATALYST BODY USING THE SAME AND THEIR PRODUCTION, AND ENVIRONMENTAL CLEANING METHOD USING THEM

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PROBLEM TO BE SOLVED: To produce a photocatalyst powder capable of sufficiently exhibiting a photocatalytic function and moreover capable of sticking to every supporting body strongly and over a long period of time without damaging the photocatalytic function by encapsulating photocatalyst particles with a porous wall comprising a light inactive material.

SOLUTION: This photocatalyst powder is formed by encapsulating the photocatalyst particles 3 such as titanium oxide used for an environmental cleaning, etc., such as sewage cleaning of an industrial waste water, etc., and decomposition/cleaning of a harmful material contained in the atmosphere and antibacterial action with the porous wall 2 composed of the light inactive material. In this case, the photocatalyst powder is preferably a fine spherical shape having 30-500 μ m diameter. And the area of the pore of the porous wall 2 is set within a range of 5-80% of total area of the porous wall 2. And a compd. of an element selected from among silicon, aluminum, zirconium, calcium, strontium and magnesium is exemplified as the light inactive material. Then the environmental cleaning is executed by allowing an environmental contamination to contact with the photocatalyst powder under light irradiation.
